

WEST Search History

DATE: Sunday, February 06, 2005

Hide?	<u>Set</u> <u>Name</u>	<u>Query</u>	<u>Hit</u> <u>Count</u>
		<i>DB=USPT; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L21	L18 and (rank or ranking or ranked)	0
		<i>DB=PGPB; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L20	L19 and (rank or ranking or ranked)	0
<input type="checkbox"/>	L19	('us20010012141' 'us20020069275')!.PN.	0
		<i>DB=USPT; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L18	('5367394' '5561542' '5663819' '5995256' '6072609' '6115743' '6154273' '6229540' '6233074' '6344910' '6377725' '6456306' '6583901' '6678475')!.PN.	14
		<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L17	L16 and l13	13
<input type="checkbox"/>	L16	(network near3 (audit or auditing or monitor or monitoring or manage or managing or management)).ti.	13353
<input type="checkbox"/>	L15	L14 and l13	130
<input type="checkbox"/>	L14	network near8 (audit or auditing or monitor or monitoring or manage or managing or management)	99151
<input type="checkbox"/>	L13	20010326	2490
<input type="checkbox"/>	L12	(rank or ranking or ranked) near8 (node or device)	3896
		<i>DB=USPT; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L11	L7 and (queue or queued or queuing)	2
<input type="checkbox"/>	L10	L7 and (que or qued or queing)	0
<input type="checkbox"/>	L9	L7 and (classify or classifying or classified)	1
<input type="checkbox"/>	L8	L7 and (rank or ranking or ranked)	0
<input type="checkbox"/>	L7	L6 or l5 or l3 or l2 or l1	5
<input type="checkbox"/>	L6	5968122.pn.	1
<input type="checkbox"/>	L5	6584535.pn.	1
<input type="checkbox"/>	L4	66584535.pn.	0
<input type="checkbox"/>	L3	6529473.pn.	1
<input type="checkbox"/>	L2	6026500.pn.	1
<input type="checkbox"/>	L1	6470385.pn.	1

END OF SEARCH HISTORY

Go to Doc#

Print

Oct 3, 2000

TITLE: Fault management system for a telecommunications network

A fault management system for an access network forms part of a public telecommunications network. In the access network, terminating lines in the form of pairs of copper wires extend from a local switch through a series of nodes to terminal equipment provided for user of the network. The fault management system includes a test head and an access network management system. Each night, the test head performs a series of test on each of the terminating lines. The results of the test are transmitted to the access network management. The test results are then converted into circuit scores, each of which is indicative of the operational quality of the tested circuit. For each node, the circuit scores of the tested circuits passing through the node are combined to produce a node score which is indicative of the operational quality of the node. In order to identify the node having the worst operational quality and therefore most in need of investigation, the nodes are ranked in accordance with their node scores.

19980313

means for ranking nodes of a terminating circuit on which a fault is suspected in accordance with their scores found by said evaluating means;

whereby, in use, after testing a circuit on which a fault is suspected, a list is produced of the nodes on said circuit in which the nodes are ranked in accordance with the likelihood of the fault being present at each node.

With this invention, as a result of ranking the nodes on a terminating circuit on which a fault is suspected in accordance with the likelihood of the fault being present at each node, an engineer can be directed to the node at which it is most likely that the fault is present. Although with this invention the engineer is not directed to the correct node on every occasion, the present invention does reduce the number of nodes which an engineer has to open before locating faults. On average, when using the invention in a conventional access network, it is estimated that an engineer will need to open less than 1.5 nodes before finding the node at which a fault is present.

rank nodes of a terminating circuit on which a fault is suspected in accordance with their scores.

ranking the nodes on the terminating line on which the fault is suspected in accordance with the scores found in said step of evaluating scores.

http://westbrs:9000/bin/cgi-bin/accum query.pl?MODE=%20%20%20%20Display%20%20%... 2/6/05

Detailed Description Text (41):

Detailed Description Text (42):

Detailed Description Text (68):

Detailed Description Text (69):

Detailed Description Text (91):

http://westbrs:9000/bin/cgi-bin/accum query.pl?MODE=%20%20%20%20Display%20%20%20%... 2/6/05

Detailed Description Text (92):

Detailed Description Text (93):

Detailed Description Text (96):

CLAIMS :

means for evaluating a score for each node on a terminating circuit line on which a fault is suspected which represents the likelihood of the suspected fault being present at the node, said evaluating means using the fault report relating to the

whereby, in use, after testing a circuit on which a fault is suspected, a list is produced of the nodes on said circuit in which the nodes are ranked in accordance with the likelihood of the fault being present at each node.

http://westbrs:9000/bin/cgi-bin/accum query.pl?MODE=%20%20%20%20Display%20%20%20%... 2/6/05

instructing said circuit testing apparatus to perform a set of tests on one of said terminating circuits;

checking the results of the set of tests performed by said circuit testing apparatus for the presence of a suspected fault and producing a fault report when a suspected fault is present;

when a fault is suspected, identifying the nodes of the terminating circuit on which the fault is suspected;

evaluating a score for each of said nodes of the terminating circuit on which a fault is suspected which represents the likelihood of the suspected fault being present at the node based on the fault report relating to the suspected fault and using data contained in said data store; and

ranking the nodes on the terminating line on which the fault is suspected in accordance with the scores found in said step of evaluating scores.

16. A fault management system for a telecommunications network including a local switch, terminal equipments provided for users of the network, and a set of terminating circuits extending between said local switch and said terminal equipments, wherein said terminating circuits take the form of insulated wires contained in cables, each of said cables passing through a series of nodes whereat a cable containing a greater number of wires is divided into a plurality of cables each containing a lesser number of wires or whereat two cables and the wires therein are joined to one another, the continuity of each wire being maintained at each node; said fault management system comprising:

circuit testing apparatus located at the local switch and arranged to perform electrical measurements on said insulated wires;

a store containing data relating to said terminating circuits and said nodes, said data including results of previous electrical measurements on said insulated wires;

means for instructing said testing apparatus to perform a set of tests on a selected one of said insulated wire circuits;

means for identifying the nodes of said selected wire circuit;

means for checking the results of said tests against data contained in said store and evaluating a score for each node of said selected wire circuit which score represents the likelihood of a suspected fault being present at the node;

means for ranking the nodes of a terminating circuit in accordance with said scores; and

means for producing a fault report containing said ranking.

18. A fault management system for a telecommunications network including a local switch, terminal equipments provided for users of the network, and a set of terminating circuits extending between said local switch and said terminal equipments, wherein said terminating circuits take the form of insulated wire pairs contained in cables, each of said cables passing through a series of nodes whereat a cable containing a greater number of wire pairs is divided into a plurality of cables each containing a lesser number of wire pairs or whereat two cables and the wire pairs therein are joined to one another, the continuity of each wire being maintained at each node; said fault management system comprising:

circuit testing apparatus located at the local switch and arranged to perform

electrical measurements on said insulated wires;

a store containing data relating to said terminating circuits and said nodes, said data including results of previous electrical measurements on said insulated wires;

means for instructing said testing apparatus to perform a set of tests on a selected one of said insulated wires;

means for identifying the nodes of said selected wire;

means for checking the results of said tests against data contained in said store and evaluating a score for each node of said selected wire which score represents the likelihood of a suspected fault being present at the node;

means for ranking the nodes of a terminating circuit in accordance with said scores; and

means for producing a fault report containing said ranking.

[Previous Doc](#)

[Next Doc](#)

[Go to Doc#](#)

[Previous Doc](#) [Next Doc](#) [Go to Doc#](#)
[First Hit](#) [Fwd Refs](#)

☐ [Generate Collection](#)

L17: Entry 8 of 13

File: USPT

Dec 21, 1999

DOCUMENT-IDENTIFIER: US 6005926 A

TITLE: Method and system for global communications network management

Application Filing Date (1):
19970911

Detailed Description Text (73):

Illustratively, the system might calculate the costs of five (or more, depending on anticipated traffic volumes) cost-efficient routes connecting each pair of nodes for each defined level of quality and service. These five routes would be ranked according to price, and stored in rate-table database 400 at server node 56. Also, as transactions are made and routes fill up, the system may determine additional routes given the new state of the network.

Detailed Description Text (103):

In acceptable carrier field 378, the requesting carrier may place constraints on the carriers via which its traffic may be routed. For example, a requesting carrier may request that its traffic be transmitted only via a top 5 carrier with respect to some parameter (e.g., quality) as ranked by server node 56. In another example, if a carrier needs to buy connect time to carry overflow traffic, it may request that it not be resold time on its own network that had originally been sold to a third party.

Detailed Description Text (158):

In a multiple server embodiment, each server node 56 may rank potential routing paths in accordance with a particular parameter or set of parameters. For example, some servers may rank routes by price. Other servers may rank routes in a manner designed to maximize network utilization. A given company may offer its communication capacity on one server or on multiple servers. Because each server may rank routes according to different priorities, a particular service query from an originating node might yield different proposed routes from each of the server nodes 56.

Detailed Description Text (170):

Also, although illustrated primarily in connection with a public network comprised of a plurality of carriers, the present invention may also be employed to efficiently manage a private network, or a network made up of facilities maintained by affiliated carriers. In this context, server node 56 will frequently be programmed to rank routing paths according to a parameter other than simple price. For example, the network may rank and allocate routes in a manner designed to maximize utilization of the network facilities.

[Previous Doc](#) [Next Doc](#) [Go to Doc#](#)